ling, a motor hurries along the road, the clouds are drifting. All is change and motion. It seems that all history is change, and all is hurrying by us as we stand. But is it not a truer view, certainly a less egoistic one, to see history as one eternal whole, and ourselves as voyagers through it, our vision of it ever changing? All our experiments, our measurings and comparisons are themselves part of the great web; we ourselves are part and parcel of it, and must acknowledge our incapacity to put ourselves outside. All our pictures and conceptions of the universe in time and space are but pictures, and the painters are many. There are strange differences between their records of what they have perceived—more, indeed, of difference than of similarity. We go to a picture-gallery; there is so much of difference that at first there seems little in common. Yet gradually we become conscious that the pictures are all drawn from a common life. We begin to be able to analyse the painters, and see what kind of a mind is looking out upon it, to detect a point of view. In so doing we grow more clear as to the one reality behind all the pictures.

This is a true parable of the great change that has been consummated in physical thought by Einstein's work. It is the recognition of the relativity of our space-and-time pictures that has clarified our understanding of the universal phenomena. Gravitation has not been explained. The mystery of it is ten times greater than before. To Newton it was one among many properties of that fundamental mystery "matter." It is almost true now to reverse the order and say that matter is one of the manifestations of the fundamental mystery of gravitation.

The reader of Einstein's exposition will need to ponder hard if he is to get to the heart of the matter. For it is a spiritual adventure upon which he has to embark. The very clarity and simplicity of the book may hide this from the over-confident. The parable may be understood and its meaning lost. But to those who have the vision the world of physics will take on a new and wonderful life. The commonest phenomena become organic parts of the great plan. The rationality of the universe becomes an exciting romance, not a cold dogma. The thrill of a comprehensive understanding runs through us, and yet we find ourselves on the shores of the unknown. For this new doctrine, after all, is but a touchstone of truth. We must submit all our theories to the test of it; we must allow our deepest thoughts to be gauged by it. The metaphysician and he who speculates over the meaning of life cannot be indifferent.

The Cambridge British Flora.

The Cambridge British Flora. By Prof. C. E. Moss, assisted by specialists in certain genera. Illustrated from drawings by E. W. Hunnybun. Vol. iii. Portulacaceæ to Fumariaceæ. Text: Pp. xvi+200. Plates: Pp. vi+191. (Cambridge: At the University Press, 1920.) Price, two parts, 6*l.* 15*s.* net; two parts in one volume, 7*l.* net.

THE previous volume of "The Cambridge British Flora" was reviewed in NATURE of August 6, 1914. Since this review was written many things have happened. Dr. Moss has been appointed professor of botany at the University College, Johannesburg, and has been unable to give personal attention to the volume during its passage through the press. The syndics of the University Press acknowledge valuable assistance given by Mr. A. J. Wilmott, of the botanical department of the British Museum, in correcting proofs and in dealing with questions which are normally settled by an editor. In July, 1918, Mr. E. W. Hunnybun died. A sympathetic note by Mr. Wilmott, at the beginning of the present volume, gives an interesting account of his method of work in preparing the illustrations, which makes clear both its advantages and limitations. The character of the illustrations has been much discussed among British botanists, but it became evident that Mr. Hunnybun could work only on his own lines, the accurate delineation of an individual specimen, and was also unable to supply the botanical details of structure of flower and fruit which, in the opinion of many, would have enhanced the value of the illustrations. As permanence is a consideration in a work of such importance as a standard British Flora, it is surprising to find the plates printed on a chalk-faced paper. Other events have tended to delay the appearance of the present volume, and to cause the serious increase in cost of production, which has necessitated raising the price to nearly three times that of the previous volume. The syndics of the Cambridge University Press must view this addition to their difficulties with grave anxiety, and it is to be feared that many students of our British flora who would wish to possess the book will be unable to meet the increased cost. The critical elaboration of a number of families will be of considerable value should the work fail of completion; but British botanists will feel deeply disappointed if it cannot be carried through satisfactorily.

The families included in vol. iii. are Portul-

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acaceæ, Illecebraceæ, Dianthaceæ (more generally known as Caryophyllaceæ), Nymphæaceæ, Ceratophyllaceæ, Ranunculaceæ, Actæaceæ (comprising the single genus Actæa), Berberidaceæ, Pæoniaceæ (limited to Pæonia), Papaveraceæ, and Fumariaceæ. The genera Montia and Cerastium have been elaborated by Dr. G. C. Druce, several genera of Dianthaceæ by Prof. R. H. Compton, and the genus Fumaria by Mr. H. W. Pugsley. In view of unavoidable delay in publication, it would be an advantage if the dates of completion of the monographs of the various families and genera were given; this would avoid the necessity for explanation in such cases, for instance, as Mr. Pugsley's account of Fumaria, which is antedated in publication by his recent complete monograph of the genus in the Linnean Society's journal, but was probably completed before the more important work was undertaken.

Dr. Moss has intercalated in the text notes on systematic arrangement, limitations of orders and families, and discussions of points of nomenclature, many of which are of considerable interest, though sometimes difficult of appreciation by the ordinary student of British botany, who may, perhaps, consider the elevation of Actæa and Pæonia to the rank of distinct families as puzzling and unnecessary. On the other hand, the student of the British flora will welcome the careful and critical treatment of the genera, species, and varieties of his plants, and appreciate the notes on their respective distribution in Great Britain and Europe, and the discussions as to their indigenousness in doubtful cases. The outline maps indicating distribution are a useful feature, and the information conveyed therein may be supplemented should occasion arise.

It is to be regretted that personal matters should have been introduced into a work of this kind. "The Cambridge British Flora" will, presumably, take rank as a standard work, a presentation of the knowledge and views of eminent British botanists at a certain period in the history of botany, and to perpetuate the differences of opinion which have arisen on matters of very secondary importance detracts from the dignity which such a work should possess. The syndics of the Cambridge University Press would have been well advised if they had exercised a fatherly censorship on several paragraphs in the introduction to the present volume. In conclusion, we would express the hope that the two succeeding volumes, which will carry the work to the end of the family Rosaceæ, will be published with as little delay as possible.

A. B. R.

Man and Matter.

Religion and Science: From Galileo to Bergson. By J. C. Hardwick. Pp. ix + 148. (London: S.P.C.K.; New York: The Macmillan Co., 1920.) Price 8*s.* net.

BECAUSE we wish to give a very favourable impression of this little book, we propose to state our criticisms at once, leaving no "but" to the end which might suggest a reservation on the part of the reviewer. Mr. Hardwick has written a very clear account of some of the chief movements of philosophic thought since the Renaissance, in so far as these bear on the concepts of science and of religion, though he modestly disclaims so large a plan. We doubt if the title is well chosen, in spite of its excellent simplicity. "Religion and Science" suggests apologetic, possibly ill-balanced and ignorant, and this the book emphatically is not. Further, the author's definition of science is unduly wide in scope. "Systematic and accurate knowledge about everything there is to be known" (p. 2) really covers the whole of philosophy: science, as the term is commonly understood, deals with the facts of the physical universe alone. Thus the statement that "religion and science regard reality from different angles, but it is the same reality that is . . . the goal of their search" (p. 6), though true for the author's definition, is not true for Prof. Karl Pearson's (which he quotes) or for that of the ordinary man. The statements about radium on p. 126 are condensed to the verge of inaccuracy. Radium is *not* the only element which breaks down; it does *not* evaporate; nor are all the particles into which it disintegrates electrons, as the phrasing suggests. The statement that "electricity is a species of energy which can be expressed in terms of Will" (p. 128) conveys absolutely no meaning as it stands, and suggests that the author has not wholly escaped the plausible but dangerous idea that the dematerialisation of matter to which scientific investigation is tending necessarily brings matter nearer in nature to mind, thus confirming the idealist position.

Philosophers may here and there disagree with the author's emphasis. For example, the contribution of Hegel is generally held to be more important than is here allowed, or at least than is brought out; while the statement of the influence of Kant gives more finality to his work than is perhaps justifiable. But these are all minor blemishes—for the most part verbal—in a valuable book. Though it is far from faultless, we do not remember to have seen so clear, simple, and balanced a summary of the main trends of human

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